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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,522	02/14/2002	Susanne H. Goodson	2001.ALC	6712

35157 7590 01/16/2007

NATIONAL STARCH AND CHEMICAL COMPANY
P.O. BOX 6500
BRIDGEWATER, NJ 08807-3300

EXAMINER	
SHEIKH, HUMERA N	
ART UNIT	**PAPER NUMBER**
1615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/074,522	GOODSON ET AL.	
	Examiner	Art Unit	
	Humera N. Sheikh	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Application

In view of the Appeal Brief filed 09/26/06, PROSECUTION IS HEREBY REOPENED.

Claims 1-10 are pending in this action. Claims 1-10 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Pardini (U.S. Patent No. 4,708,870).

The instant invention is drawn to a solid polymer film comprising a polymer comprising: 2 to 60 mole percent of protonated amine monomer units, wherein said protonation is formed by a fixed acid; and 40 to 98 mole percent of hydrophobic monomer units.

Pardini ('870) discloses a method for imparting a non-fugitive antimicrobial activity to an article of manufacture, which comprises forming the articles of manufacture from an acrylonitrile composition which includes up to 10% of a protonated amine. The antimicrobial activity is inherent in the acrylonitrile composition (see Abstract).

Pardini teaches that non-fugitive antimicrobial activity is imparted to acrylic polymers, fibers or fabrics made thereof, by copolymerization of an acrylic protonated amine comonomer and/or by use of protonated amine end groups (col. 2, lines 1-63).

The Examples at column 5 demonstrate various embodiments of the invention. Example 1 at Table II on column 5 demonstrates acrylonitrile (AN) and methacrylate (MA) monomers were copolymerized with various protonated amine-containing monomers. The example shows that the copolymerization of protonated amine containing monomers in acrylic polymers imparts antimicrobial activity.

The claims are anticipated by Pardini.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pardini (U.S. Patent No. 4,708,870).

The instant invention is drawn to a solid polymer film comprising a polymer comprising: 2 to 60 mole percent of protonated amine monomer units, wherein said protonation is formed by a fixed acid; and 40 to 98 mole percent of hydrophobic monomer units.

Pardini ('870), as delineated above, teaches a method for imparting a non-fugitive antimicrobial activity to an article of manufacture, which comprises forming the articles of manufacture from an acrylonitrile composition which includes up to 10% of a protonated amine. The antimicrobial activity is inherent in the acrylonitrile composition (see Abstract).

Pardini teaches that non-fugitive antimicrobial activity is imparted to acrylic polymers, fibers or fabrics made thereof, by copolymerization of an acrylic protonated amine comonomer and/or by use of protonated amine end groups (col. 2, lines 1-63).

The Examples at column 5 demonstrate various embodiments of the invention. Example 1 at Table II on column 5 demonstrates acrylonitrile (AN) and methacrylate (MA) monomers were copolymerized with various protonated amine-containing monomers. The example shows that the copolymerization of protonated amine containing monomers in acrylic polymers imparts antimicrobial activity.

With regard to mole percent claimed by Applicant, one of ordinary skill in the art would be able to make the conversion between mole percent and percent by weight. No unexpected results have been observed through Applicant's claimed amounts since the prior art clearly teaches similar amounts, as shown in the Examples.

The prior art teaches the same components, *i.e.*, protonated amine, for use in the same field of endeavor as the Applicants.

Given the teachings of Pardini discussed above, the instant invention, when taken as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Humera N. Sheikh whose telephone number is (571) 272-0604. The examiner can normally be reached on Monday through Friday during regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Humera N. Sheikh

Primary Examiner

Art Unit 1615

January 08, 2007

HUMERA N SHEIKH
PRIMARY EXAMINER
TC-1600

hns